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Summer News from

Welaka National Fish Hatchery

Apalachicola River Mussel Survey

Region 4 Dive team members from the Panama City Fisheries and Ecological Service Offices and the Welaka National Fish Hatchery spent two and one-half weeks SCUBA diving the Apalachicola River conducting a major freshwater mussel survey. Using radial plots, 220 points were sampled covering 40 miles of the Apalachicola River below Jim Woodruff Dam. Prior to putting the divers in the water, the river bottom was mapped using side scan sonar technology. From the mapping effort, different bottom types (mesohabitats) were identified and the sampling points were divided between these different mesohabitats. Two teams of divers with boat operators worked down the river from point to point not only looking for mussels, but also ground truthing the mesohabitats defined by the sonar scans, and collecting habitat data.

The first week of sampling took place the week of June 19th, but was cut short when Tropical Storm Emily decided to dump several inches of rain over the Florida Panhandle, Southeast Alabama and Southwest Georgia causing the U.S. Army Corp of Engineers to start releasing excess water through the floodgates of the dam. The dive team reconvened a month later to complete the survey when the river flows returned to safe diving levels. Due to the large amount of data collected during this survey, the final results are still being examined and will be released at a future date. For more information about the Region 4 Dive Team, you can contact Steve Rees (steve_rees@fws.gov), Channing St. Aubin (channing_staubin@fws.gov) or Tony Brady (tony_brady@fws.gov). *continued*

Divers and boat operators confer about the next dive site, credit: USFWS/Melody Ray-Culp

Congressman Ted Yoho, credit https://yoho.house.gov/

Congressman Yoho Visits Welaka National Fish Hatchery

Summer at Welaka National Fish Hatchery started off with a visit from Congressman Ted Yoho. Before becoming a congressman, Yoho was a veterinarian so he understands animals and as a lifelong fisherman, he understands the value of the work undertaken here at the hatchery.

The Congressman's tour started at our aquarium and we explained that the aquarium is our main source for public interaction. The Congressman then got to see how the hatchery rears Striped Bass for the St. Johns River and for the Apalachicola, Flint and Chattahoochee Rivers in the panhandle of Florida. We then showed him Beecher Springs, which is the hidden gem of the hatchery and our main water source for the Beecher Unit of the hatchery. The Congressman then learned about our work providing other federal water such as national wildlife refuges and military bases with fish for the public and our military personnel.

We believe Congressman Yoho enjoyed his visit with us and learned how we are

Making Fishing Great Again.

Welaka NFH Staff Treats Excessive Aquatic Vegetation on MacDill Air Force Base

Welaka National Fish Hatchery has a unique partnership with MacDill Air Force Base. For the past four years, trained personnel from the hatchery have gone to MacDill AFB to treat water bodies across the Base for excessive and invasive aquatic vegetation.

This summer, hatchery staff has made two trips to treat aquatic vegetation on the Base. The first trip, made in June, focused on three major water bodies, Lewis Lake, Lake McClelland and the canal that runs around the Base's fitness center. Using a boat fitted with a chemical tank that disperses chemical directly into the water column, we were able to treat Lewis Lake for any new hydrilla growth. A truck mounted chemical sprayer was then used to treat excessive cattails in the canal running around the Base's fitness center and newly emergent cattails in Lake McClelland. The second trip took place in August and focused on other canals around the base that were being choked with cattails.

One area on the Base that we have not had the chance to treat this year is the golf course ponds. The golf course ponds were not treatable with the truck mounted sprayer because the grounds were too soft to drive the truck on without tearing up the grass on the course. We were able to scout the golf course ponds via a golf cart allowing us to devise a plan of attack for a future trip to deal with cattails and hydrilla in these ponds using a side by side All-Terrain Vehicle with a sprayer.

MacDill AFB Hatchery personnel spraying canals at Mac Dill Air Force Base, credit: USFWS

Water hyacinth turning brown and dying after being sprayed, credit USFWS.

Apalachicola River Mussel Survey *continued*

Channing St. Aubin records data from the mussel survey, credit: USFWS/ Melody Ray-Culp.

Welaka NFH Joins Recovery Efforts for Eastern Indigo Snakes

The Eastern Indigo Snake (Indigo) is the largest native snake species in the United States, growing up to eight feet in length. Historically, the Indigo occurred throughout Florida and in the coastal plain of Georgia, Alabama and Mississippi. Today, most, if not all, of the remaining viable populations of the Indigo occur in southeastern Georgia and peninsular Florida. It is believed that the Indigo has been extirpated from Alabama, Mississippi and the panhandle of Florida.

Ken Blick holds an Indigo snake.

The Indigo was listed as Federally Threatened in 1978 due to a combination of habitat loss and fragmentation and over harvest for the pet trade. It is also believed that significant numbers of Indigos have been killed by rattlesnake hunters gassing gopher tortoise burrows in search of rattlesnakes. In the northern part of their range, Indigos are closely associated with gopher tortoises using their burrows as refugia to stay warm during the winter months. Ongoing efforts to recover gopher tortoises and their habitat have provided an opportunity to also begin recovery efforts for the Indigos.

In 2010, the first release of Indigos was conducted in the Conecuh National Forest in Alabama where 17 Indigos were released into the wild. As of the summer of 2017, a total of 133 Indigos have been released onto Conecuh National Forest. A second recovery area was identified at

Welaka NRH staff prepare for the Indigo snake room.

The Nature Conservancy's Apalachicola Bluffs and Ravines Preserve in the panhandle of Florida. Twelve Indigos were released onto the preserve in July 2017, marking the first Indigo release in Florida in nearly three decades. The goal for the Eastern Indigo Snake Recovery Program is to release approximately 300 Indigos at each location over a 10 year period.

The Central Florida Zoo's Orianne Center for Indigo Conservation (OCIC) is the sole breeding facility that is producing animals for release back into the wild. The OCIC is working to increase their founder population of breeding adults in order to meet the goal of 60 snakes to be released. As the number of hatchlings increases at the OCIC each year, space is rapidly diminishing. In order to increase capacity for the growing number of captive snakes each year, the OCIC works with partners to help grow out or headstart the hatchlings for two years prior to their release to increase their survivorship in the wild. These partnerships also help protect the captive Indigo population from biological (e.g. disease) and environmental (e.g. storms) threats that could affect one or more facilities.

Zoo Atlanta has been aiding recovery efforts by headstarting Indigos hatched at the OCIC, and after the releases in 2017, they recognized that a revamp of their indigo holding space was needed in order to maintain continued success in the headstarting program. With Zoo Atlanta not able to headstart snakes this coming year, the Welaka National Fish Hatchery was asked if we would be interested in participating in the culture of Indigos for recovery efforts.

An Indigo snake in a culture unit, something Welaka NFH will soon have.

The exterior of the Indigo snake room.

Members of our staff made the one hour drive to the OCIC and met with the OCIC biologists and learned how to care for Indigos. After the visit to the OCIC, we decided that the hatchery would be able to participate in the Eastern Indigo Snake Recovery efforts and dedicated space in one of our fish buildings for the Indigo Snake Culture Room.

Since then, we have worked to remove a 10 foot circular tank and the decking around it, enclosed the area creating a room in the corner of the building, and began purchasing the materials needed to headstart Indigos. Welaka NFH hopes to have the Indigo Snake Culture Room completed by the end of FY17 and ready to receive the first cohort of Indigo snakes from the OCIC this winter.